

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1. (Canceled)

Claim 2. (Canceled)

Claim 3. (Previously Presented): An exposure device according to Claim 43, wherein said medium directing means is formed from a raised area of said base portion of said exposure device.

Claim 4. (Canceled)

Claim 5. (Previously Presented): An exposure device according to Claim 43, wherein said nutrient medium directing means is centrally located within said nutrient medium chamber.

Claim 6. (Previously Presented): An exposure device according to Claim 43, wherein said nutrient medium directing means is located equidistant to each of said cell culture chambers.

Claim 7. (Previously Presented): An exposure device according to Claim 43, wherein said exposure device comprises three cell culture chambers.

Claim 8. (Previously Presented): An exposure device according to Claim 43, wherein the base of each of said cell culture chambers is spaced apart from the base of said exposure device by a gap such that, in operation, nutrient medium flows freely under each of said cell culture chambers within said nutrient medium chamber.

Claim 9. (Original): An exposure device according to Claim 8, wherein said gap is at least 1mm.

Claim 10. (Previously Presented): An exposure device according to Claim 8, wherein said gap is about 2mm or more.

Claim 11. (Previously Presented): An exposure device according to Claim 43, wherein said nutrient medium inlet is located in said base portion of said exposure device such that, in operation, nutrient medium flows directly into said nutrient medium chamber.

Claim 12. (Previously Presented): An exposure device according to Claim 11, wherein said nutrient medium inlet is located in a side wall of said base portion of said exposure device.

Claim 13. (Previously Presented): An exposure device according to Claim 11, wherein said nutrient medium inlet is located in a bottom wall of said base portion of said exposure device.

Claim 14. (Previously Presented): An exposure device according to Claim 43, wherein said nutrient medium inlet is a pipe or a tube.

Claim 15. (Previously Presented): An exposure device according to Claim 43, wherein said nutrient medium outlet is spaced apart from said nutrient medium inlet.

Claim 16. (Currently Amended): An exposure device according to Claim ~~[[2]]~~43, wherein said nutrient medium outlet is spaced apart from said nutrient medium inlet by all of said cell culture chambers and/or said nutrient medium directing means.

Claim 17. (Canceled)

Claim 18. (Currently Amended): An exposure device according to Claim ~~[[17]]~~43, wherein said nutrient medium outlet extends from the top portion of said exposure device into said nutrient medium chamber.

Claim 19. (Previously Presented): An exposure device according to Claim 43, wherein said nutrient medium outlet comprises two outlets.

Claim 20. (Previously Presented): An exposure device according to Claim 19, wherein one of said two outlets of said nutrient medium outlet is positioned to allow for basal feeding of cell cultures within said cell culture chambers, and the other of said outlets of said nutrient medium outlet is positioned to allow for submersion feeding of said cell cultures within said cell culture chambers.

Claim 21. (Previously Presented): An exposure device according to Claim 43, wherein said nutrient medium outlet is a pipe or a tube.

Claim 22. (Canceled)

Claim 23. (Canceled)

Claim 24. (Canceled)

Claim 25. (Previously Presented): An exposure device according to Claim 43, wherein said nutrient medium outlet is operably attached to a first pump and said nutrient medium inlet is operably attached to a second pump.

Claim 26. (Previously Presented): An exposure device according to Claim 25, wherein, in operation, said first pump has a controllable first pump rate and said second pump has a controllable second

pump rate and said first pump rate is at least equal to said second pump rate.

Claim 27. (Original): An exposure device according to Claim 26, wherein said first pump rate is greater than said second pump rate.

Claim 28. (Canceled)

Claim 29. (Previously Presented): An exposure device according to Claim 43, wherein said fluid exposure chamber is in flow communication with all said cell culture chambers.

Claim 30. (Previously Presented): An exposure device according to Claim 43, wherein said exposure device further comprises fluid dispersing means.

Claim 31. (Original): An exposure device according to Claim 30, wherein said fluid dispersing means is operable to provide substantially contemporaneous fluid exposure to each of said cell culture chambers.

Claim 32. (Previously Presented): An exposure device according to Claim 30, wherein said fluid dispersing means is a disc-shaped plate above said cell culture chambers.

Claim 33. (Previously Presented): An exposure device according to Claim 43, wherein said fluid inlet is located in said top portion of said exposure device.

Claim 34. (Previously Presented): An exposure device according to Claim 43, wherein said fluid inlet is operably connected with fluid generating means whereby fluid is delivered to said exposure device through said fluid inlet.

Claim 35. (Previously Presented): An exposure device according to Claim 43, wherein said exposure device further comprises a cell culture chamber support.

Claim 36. (Previously Presented): An exposure device according to Claim 43, wherein said exposure device is formed from a material selected from the group consisting of PTFE, Stainless Steel, Poly (Methyl Methacrylate) and Glass.

Claim 37. (Canceled)

Claim 38. (Canceled)

Claim 39. (Canceled).

Claim 40. (Canceled)

Claim 41. (Canceled)

Claim 42. (Canceled)

Claim 43. (Currently Amended): An exposure device for living cell cultures comprising a base portion connected with a top portion to form therebetween a nutrient medium chamber adjacent said base portion and a fluid exposure chamber adjacent said top portion which is contiguous and coextensive with said nutrient medium chamber, and a plurality of cell culture chambers extending from said fluid exposure chamber and into said nutrient medium chamber;

said nutrient medium chamber being common to all of said cell culture chambers;

a fluid inlet for introducing fluid into said fluid exposure chamber;

a fluid outlet for removal of fluid from said fluid exposure chamber;

a nutrient medium inlet for providing nutrient medium to said nutrient medium chamber;

at least one nutrient medium outlet for extraction of nutrient medium from said nutrient medium chamber;

said nutrient medium chamber being positioned to provide a common well of nutrient medium that passes from said nutrient medium inlet to said at least one nutrient medium outlet; and a passive nutrient medium directing structure means comprising consisting of an island projecting

from said base portion and centrally located within said nutrient medium chamber, midway between
each of said cell culture chambers, in position within the flow of said nutrient medium from said
nutrient medium inlet to said at least one nutrient medium outlet and around which said nutrient
medium may flow;

said cell culture chambers being in position both to receive nutrient from said common well
of nutrient medium in said nutrient medium chamber and to be exposed to said fluid in said fluid
exposure chamber as it passes from said fluid inlet to said fluid outlet.